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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO.         |
|---|-------------|----------------------|---------------------|--------------------------|
| 10/565,785  | 01/25/2006  | Kiyoda Aida          | P29103              | 7530                     |
| 7055  | 7590        | 10/20/2008           | EXAMINER            |                          |
| GREENBLUM & BERNSTEIN, P.L.C.<br>1950 ROLAND CLARKE PLACE<br>RESTON, VA 20191 |             |                      |                     | RUSSELL, CHRISTINA MARIE |
| ART UNIT  |             | PAPER NUMBER         |                     |                          |
| 2837  |             |                      |                     |                          |
|   |             |                      | NOTIFICATION DATE   | DELIVERY MODE            |
|   |             |                      | 10/20/2008          | ELECTRONIC               |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/565,785             | AIDA ET AL.         |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | CHRISTINA RUSSELL      | 2837                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 04 August 2008.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.  
 4a) Of the above claim(s) 16 and 17 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,2,6,8-10,14 and 15 is/are rejected.  
 7) Claim(s) 3-5,7 and 11-13 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 25 January 2006 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/27/06</u> .   | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I, comprising claims 1-15, in the reply filed on 8/4/2008 is acknowledged.

### ***Drawings***

1. Figures 2, 20 and 21 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). These Figures are discussed as "known in the art" in the Background section of the Specification.
2. Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

4. In Figure 12, reference character 3U is shown, but not mentioned in the specification.
5. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 1 recites the limitation "the connection portion" in lines 19 and 20. There is insufficient antecedent basis for this limitation in the claim. No previous mention of a connection portion has been made.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 2, 6, 8, 9, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over that which is known in the art.

11. In terms of claim 1, the Applicant states, in the Background section of the Specification, that a construction of a prior art duct wall (12), as seen in Figures 22-24, has been known (see pages 2-5). This prior art duct wall is shown to have an inner plate (3) at a gas flow side, an outer plate (2) at the atmospheric side, one or more intermediate members (6), disposed in parallel to the inner plate and outer plate, between the inner and outer plates, and a plurality of first (5A) and second (5B) supporting members, wherein the first (5A) are fixed at the inner plate and intermediate member and the second (5B) to the outer plate and intermediate member. The Applicant also states that is known in the art to include a heat insulating member to fill in

the clearances. Some examples of this prior art structure can be seen in the Japanese publications to Oshio (2002-206211), Shiyuuri (2000-027333) and Iwanaga (51-143915). The Applicant further states that a vibration deadening washer (8) of a structure in which a vibration deadening material (8b) (Figure 2) is placed between two plate materials (8a) has been known as a vibration deadening and sound insulating material for buildings. Such prior art that uses such vibration deadening material is again the Japanese publication to Shiyuuri (2000-027333), and also the Japanese publication to Ito (9-2797147). Ito in particular shows a rubber cushion (11a), made of vibration deadening material, attached, via a washer (12), to the intermediate side of a second supporting member (see Figures 2-5 and paragraphs [0008] and [0012]). The use of vibration deadening washers have also bee seen in the loudspeaker, fan, and combustion air device arts (see Braund 2,915,134, Smith 2,900,127, and Beckett 2,310,274), to lessen vibrations and sounds of such devices. Therefore, since vibration deadening washers/materials have been known in the art, it would have been obvious, to one ordinary skill in the art, to incorporate such material into any of the duct wall structures mentioned above, to improve soundproofing performance.

12. As for claim 2, both Oshio (see Figures 6 and 14) and Shiyuuri (see Figure 1) show the fixing points of the first and second supporting members on the intermediate member shifted from each other, or staggered. Therefore, obviousness stands for the reasons stated above.

13. As for claim 6, Oshio and Shiyuuri further show the intermediate member comprising a plurality of holes through which the second supporting members are

passed and secured. Many of the other duct wall or soundproofing structures state above show such holes, or screw holes, etc, therefore, obviousness stands for the reasons stated above.

14. As for claim 8, Oshio shows, in Figures 12 and 14, a second intermediate member, or connecting portion, wherein the main portion, or first intermediate member, is disposed in the direction of the flow, while the second is disposed in an orthogonal direction to the flow. Therefore, obviousness stands.

15. As for claim 9, the above mentioned publications disclose the claimed invention except for a plurality of parallel intermediate members. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide multiple intermediate members, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art, and since, all the above mentioned publications already provide at least one intermediate member disposed in a parallel direction to the flow. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). A further example of multiple intermediate members can be seen in the US patent to Rechstelmer (5,509,242).

16. As for claim 14, the Applicant again states that a vibration deadening washer (8) of a structure in which a vibration deadening material (8b) (Figure 2) is placed and nipped between two plate materials (8a) has been known (see references cited above) Therefore, obviousness stands for the reasons stated above.

17. In terms of claim 15, the above cites references teach all the similar elements as recited in claim 1, while Shiyuuri further teaches the vibration deadening washer, or

Art Unit: 2837

elastic material (11), as being composed of a tray-shaped pan, attached to a connection portion between the supporting members and inner plate, with a vibration deadener inserted into the tray-shaped pan and an upper cover disk matched (see Figures 2-4 and paragraphs [0012]-[0014]). Therefore, obviousness stands for the reasons stated in claim 1.

18. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over what is known in the art as applied to claim 1 above, and further in view of the Japanese publication to Furuta et al. (10-121599).

19. All the above referenced publications teach a plurality of holes for attaching the first supporting members to the inner plate; however, they fail to teach the inner plate composed of a plurality of members laminated to each other. Furuta et al. teaches a similar sound proof wall structure comprising a fiber-laminated layer body and a fiber-laminated layer face. Therefore, it would have been obvious, to one of ordinary skill in the art, to provide multiple laminated members as the inner plate, which is disposed on the gas flow side, to provide better sound absorption.

***Allowable Subject Matter***

20. Claims 3-5, 7, and 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

21. As for claim 3, the prior art fails to teach, or fairly suggest, the attaching position of the vibration deadening washer being provided in an area of the duct wall whose temperature is 400 degrees Celsius or less.

22. As for claims 4, and claim 5 dependent on claim 4, the prior art fails to teach, or fairly suggest, the vibration deadening washer provided at half the entire thickness of the heat insulating member filled between the inner and outer plate, or at the outer plate side position from the half thereof.

23. As for claim 7, the prior art fails to teach, or fairly suggest, a plurality of holes, through which the second supporting member is secured at the intermediate member, composed with a hole for fixing the vibration deadening washer, disposed at the middle part of the intermediate member, and one or more sets of loose holes disposed at the symmetrical positions of the intermediate member, centering around a corresponding fixing hole.

24. As for claim 11, the prior art fails to teach, or fairly suggest, those elements discussed above in relation to claim 7, but disposed on the laminated inner plate members of claim 10, and not the intermediate member.

25. As for claim 12, the prior art fails to teach, or fairly suggest, the laminated inner plate members, of claim 10, disposed so as to partially overlap with the inner plate member adjacent thereto, where the inner plate member at the upstream side of a gas flow is installed on the inner plate member at the downstream side, and the inner plate member at the downstream side is in the perpendicular direction, installed on the inner plate member at the lower side in the perpendicular direction.

26. As for claim 13, the prior art fails to teach, or fairly suggest, a middle plate for bifurcating the heat insulating member, provided at the attaching position of the intermediate member along the lengthwise direction of the inner and outer plates.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTINA RUSSELL whose telephone number is (571)272-4350. The examiner can normally be reached on Mon-Fri, 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on 571-272-2227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

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/Christina Russell/  
Examiner, Art Unit 2837  
10/10/2008

/Walter Benson/  
Supervisory Patent Examiner, Art Unit 2837